



S^r Gregory ADDRESS

TO THE

REVEREND

THE

MINISTERS OF THE CHURCH OF SCOTLAND,

FROM THE

MANAGERS OF THE VACCINE INSTITUTION

AT

EDINBURGH.

EDINBURGH:

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TO THE
REVEREND
THE
MINISTERS OF THE CHURCH OF SCOTLAND.

REVEREND SIRS,

WE deem it unnecessary to offer any apology for the liberty which we have taken of addressing to you the annexed Report from the Surgeons of the institution for promoting Vaccine Inoculation at Edinburgh, well knowing that active benevolence is not more your duty than your inclination.

IN requesting your assistance to disseminate the blessings of vaccine inoculation among the poorer part of your flocks, we afford you an opportunity of promoting their comfort, in a degree inferior only to what they experience from the functions of your sacred office.

You are already acquainted with the general history of Dr Jenner's discovery of inoculation for cow-pox, and of its affording a complete secu-

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rity against the contagion of small-pox; we shall therefore only beg leave to call your attention to the following short statement of facts:

IN the *first* place, it is certain, that notwithstanding the long continued practice of inoculation with variolous matter, even when employed according to the most approved plan, above 50,000 died annually of the natural small-pox in Great Britain and Ireland.

IN the *second* place, it is equally certain, that in Great Britain and Ireland near half a million have been rendered perfectly secure against the contagion of small-pox, by having been inoculated for cow-pox, and that, according to the most authentic accounts, none have died, and few have suffered any inconvenience from the operation of vaccination. This contrast is too striking to require any comment.

THE principal obstacles to the universal adoption of vaccine inoculation in Scotland, are founded,

1st, ON religious prejudices; and,

2d, ON the difficulty which the poor labour under of procuring the operation to be performed.

THE first can be removed only by you. The well-merited confidence which the people repose in

in you, and the endearing relation which subsists between you and them, from the benevolent nature of your sacred office, must render every recommendation from you on this subject effectual.

THE removal of the second obstacle must likewise in a great measure depend upon you.

IT is well known to you, that there are many parts of Scotland too remote to enjoy the benefit of medical assistance, and in every parish there are many who find the expence of procuring it beyond their ability. Among them the small-pox makes peculiar havoc, often carrying off the great majority of a family, and leaving many of those who survive objects of commiseration for life.

To remedy this great evil, we do not hesitate to propose, that you yourselves should take the trouble of inoculating with vaccine virus all those who are not able to procure medical aid for that purpose ; or, if you decline performing the operation yourselves, that you should get the Catechist, Schoolmaster, or some sensible man in your parish, to perform it.

To enable you to do this, we have subjoined to the report formerly mentioned such plain instructions, that the operation may be entrusted to any of those to whom you are pleased to communicate them.

WE are sensible that the execution of our plan will be attended with a considerable degree of trouble to you; but your benevolence will be amply rewarded by the reflection, that you have contributed materially to the important work of exterminating one of the greatest scourges of the human race, and that your endeavours have been united with those of some of the first characters in the British empire in this truly meritorious undertaking.

ELCHO,	}	Vice-Presidents,
HENRY ERSKINE,		
ADAM ROLLAND,	}	Committee,
GEORGE BAIRD,		
JAMES FINLAYSON,		
ALEX. MONRO, sen.		
ALEX. WOOD,		

REPORT OF THE SURGEONS TO THE INSTITUTION FOR PROMOTING VACCINE INOCULATION.

[Presented to the Annual Meeting of Contributors to the Public Dispensary and Vaccine Institution of Edinburgh, held on the 29th January 1803.]

THE Surgeons of the Vaccine Institution have the honour to inform the Meeting, that from the 18th of February 1801 to the 29th of January 1803, they have inoculated 1204 children at the Dispensary.

THESE have passed regularly through the cow-pox, and hardly suffered any inconveniency during its progress.

A GREAT proportion of these children have been exposed to the contagion of small-pox since they were vaccinated, which they have completely resisted. Indeed, so much is this the case, that we have now the satisfaction to see a great many mothers, who brought their children to be inoculated at an early period of this establishment, return with a younger set to reap the benefits of which it is productive. From them we have uniformly heard, that they were so much convinced of the security of their children who had been vaccinated, that they never prevented them from being in company with those who were affected with small-pox.

BESIDES

BESIDES those who have been inoculated at the Institution, we have vaccinated a considerable number in private, a great proportion of whom have been subjected to variolous inoculation without effect.

To second the benevolent intention of disseminating the blessings of vaccination as much as possible, we have given many hundred parcels of genuine matter to gentlemen who have called at the Institution, and have forwarded many more to medical practitioners in all parts of the world.

WE have paid very great attention to the proper method of preserving the virus in an active state.

WE have been the more attentive to this circumstance, from the conviction that a great number of disappointments have happened from a neglect of similar precaution.

WE have received very satisfactory accounts of the activity of the virus, sent from the Institution, to many parts of Scotland, to the north of England, to Ireland, to America, and to the West Indies. We have sent matter to the East Indies, but have as yet had no information of its success.

FROM all these accounts, we are happy to inform you, that your benevolent institution has already been the means of preserving many thousand useful lives to the community.

THAT the blessings of this discovery might be extended to the remotest corners of this kingdom as speedily as possible, we took the liberty of suggesting to the Committee, at the last quarterly meeting, on the 5th of November 1802, the propriety of having this report "published in the " form of, or accompanied by, an Address to the " Clergy of Scotland, with such plain directions " annexed, that any clergyman, or other sensible " person, might perform the operation in remote " corners of the country, which are out of the " reach of medical assistance."

OF this suggestion you were pleased to approve, by ordering it to be published in the newspapers, sanctioned by the name of your preses.

SINCE that time, a treatise on the cow-pox, addressed to the Clergy of Scotland, has been published by one of our brethren. While we allow the ingenious performance of this gentleman all due praise, we by no means think that it has superseded the necessity of our proposed Address.

THE principal points which we have endeavoured to explain in the annexed instructions are,

1st, THE mode of performing the inoculation.

2d, A PROPER attention to the progress of the disease, in order to distinguish the constitutional from the local affection, or what has been called the spurious disease.

3d, The proper period at which virus should be taken for inoculation. And,

Lastly, The proper method of preserving the virus.—

ON the subject of preserving the vaccine virus in a state of activity, and of procuring a supply adequate to the demand, we have treated pretty fully in the annexed Instructions. This we thought necessary, as we find demands for virus every day, even from some of the largest towns in Scotland, where they have not yet been able to keep up a regular supply of it.

The importance of having proper establishments, from which to procure genuine vaccine matter at any time, the following little history will evince.

ABOUT six weeks ago, a gentleman, from the Isle of Mull, applied to us for vaccine matter to send to that island. At the same time he informed us, that the small-pox had made its appearance there, and was committing horrible devastation among the inhabitants. In one family, the mother, and five children out of six, fell victims to this disease, and in every family a very great majority of the infected had fallen a sacrifice to this cruel distemper. The matter was sent off immediately; and we have the satisfaction to inform the Meeting, that we have received accounts from the medical gentleman there, that the matter had proved active; that he had inoculated a very great number of all ages; and that he had succeeded in banishing the small-pox from the island. How happy this conclusion! But how tragical would it have been, had there been no medical man, or some other proper person, to have conducted the vaccine inoculation on the island!!! And that this is the case in many of the islands and remote corners of Scotland is well known to every person acquainted with these parts of the country.

BESIDES the numbers who have been inoculated at the Dispensary, and the very great supply of genuine virus which is daily sent abroad, this Institution has been of considerable service by shewing the practice of vaccination to a great

many young gentlemen belonging to the University, to whom we give all the information in our power.

BEFORE we conclude, we beg leave to congratulate the Meeting on the happy prospect of seeing their efforts in the cause of humanity so nobly seconded by people of all ranks in the metropolis, and to express our hopes, that something of the same kind, upon a very broad basis, will take place in this city. Then may we expect that the time is not far distant, when that terrible scourge of the human race, the small-pox, shall be exterminated from these realms, and ultimately from the face of the earth.

WILLIAM FARQUHARSON,
JAMES BRYCE.

REPORT OF THE SURGEONS TO THE VACCINE IN-
STITUTION AT THE PUBLIC DISPENSARY OF
EDINBURGH, FRIDAY, MAY 6.

THE Surgeons have the honour to inform the Committee, that they have inoculated near 300 children since the last quarterly meeting, which makes the number inoculated at the Dispensary near 1500.

IN the last Report they took the liberty of suggesting the plan of an Address to the Clergy of Scotland, accompanied with instructions for vaccine inoculation, and mentioned the outlines. You were pleased to appoint a sub-committee to get these properly prepared, so as to be read at this Meeting. We beg leave to mention, that, though they are in great forwardness, it will require a few days to finish them: We therefore suggest the propriety of continuing the powers of the sub-committee, and of having these papers read at an extraordinary meeting some days previous to the 19th of May, when the General Assembly sits down, so as that the members may get their copies before leaving Edinburgh.

SINCE the last meeting, we have received many additional accounts of the success of vaccination from all quarters. We have likewise heard from Dublin of an official communication having been made by the Lord-Lieutenant to the Colleges of Physicians and Surgeons, desiring them to report to him their opinion of the most effectual method of rendering vaccination general in Ireland, and our correspondent has promised us a copy of the Report as soon as it is published.

IN our last Report we took the liberty of congratulating the Meeting "on the happy prospect of seeing their efforts in the cause of humanity so nobly seconded by people of all ranks in the metropolis, and to express our hopes that something of the same kind, upon a very broad basis, should take place in this city." We again beg leave to call the attention of the Committee to this subject, which seems, if possible, more necessary than ever, in consequence of its being agitated in Dublin, as well as in London. We had some expectation of being able to have procured the Report of the London Committee, but find, by a correspondence with Dr. Jenner, that it is not yet published.

WILLIAM FARQUHARSON,
JAMES BRYCE.

INSTRUCTIONS FOR CONDUCTING THE VACCINE
INOCULATION.

IN order to secure the success of vaccine inoculation, the principal points to be attended to, are,

1st, THE mode of inserting the virus.

2d, A PROPER attention to the progress of the disease, in order to distinguish the constitutional from the local affection, or what is called the spurious disease.

3d, THE proper period at which the virus should be taken for inoculation. And,

Lastly, THE proper method of preserving the virus, so as to have a constant supply of it even in the most remote corner of the country.

1st, THE mode of inserting the virus.—

IF the virus to be inserted be in a fluid state, it ought to be kept completely to the point of the lancet, by means of a pin, or the point of another lancet, until it becomes so viscid as not to be easily

fiy rubbed off. If, on the contrary, the virus be in a dry state, or to be obtained from a crust, it must be moistened with a drop of cold water, and applied to the point of a lancet, as above directed. It may then be inserted, about mid-way between the shoulder and the elbow, either by means of a very slight scratch, not exceeding the eight of an inch, or by an oblique puncture of the same size, merely under the scarf skin ; and of these modes we prefer the latter. In both methods care should be taken to wipe off the matter from the lancet, so as to fairly lodge the virus in the wound.

2d, A PROPER attention to the progress of the disease, in order to distinguish the constitutional from the local affection, or what is called the spurious disease.

IT appears to us, that authors have created an unnecessary degree of difficulty and confusion, by the introduction of the term spurious into the pathology of cow-pox ; for we presume, that the affection must either be cow-pox or not. If the virus be taken from a genuine vaccine pustule at a proper period, and inserted before it has suffered any change, it can produce nothing but a cow-pox pustule. This, however, may be constitutional or local, and it is to the discrimination of these affections that we wish particular attention should be paid.

THE regular progress of the affection is as follows :

IT very frequently happens, that a considerable degree of redness, extending in a circle round the punctured part, is observable in a few minutes after the operation has been performed.

WHEN this does not take place, there is little change until the third day, when a small red spot will appear on the punctured part, which, on passing the finger over it, is found to be elevated and hard. This on the fourth or fifth day will become perceptibly vesicated. This vesicle will go on increasing till about the eighth or ninth day, when it will be of considerable magnitude. It will be of a circular or oblong form, according to circumstances, having a well defined margin and a considerable depression in the center, where a small crust is formed, appearing to fix the central parts to the parts underneath. About this time a rose-coloured efflorescence, or areola, begins to appear around the base of the pustule. About the eighth or ninth day the patient sometimes becomes fretful, restless, and has some symptoms of fever, but this is generally so slight as hardly to be observed.

ABOUT the tenth day, the pustule will have attained its greatest magnitude. The central crust is

is then much enlarged, and the margin of the vesicle appears very turgid. The surrounding efflorescence, or areola, is at this time very considerable, and extends in a circle from half an inch to an inch and a half in diameter. Close upon the vesicle this efflorescence is very deep coloured, approaching to livid, but becomes more faint as it recedes towards the circumference. The parts underneath feel very hard and tense, and about this time there is generally some hardness and swelling in the arm-pit.

ABOUT the fourteenth day, the efflorescence, or areola, has entirely disappeared, leaving the space which it occupied of a dingy yellowish colour. At this time too, the hardness below the areola has gone off, and the vesicle is formed into a hard crust. This crust is elevated above the skin of the surrounding parts, is hard and glossy, of a mahogany colour, and is nearly transparent.

THIS crust generally falls off about the eighteenth or twentieth day, when the whole process is finished.

IF the pustule has passed regularly through these different stages, and more especially if about the eighth or ninth day some fretfulness or fever has been observed, then we may rest satisfied that the antivariolous process has been effected. But as

as in many cases these regular stages are not clearly marked, neither can any fever be detected ; and as it may certainly happen that the affection is merely local, and consequently ineffectual for the prevention of small-pox, we shall first detail such appearances as may in general lead to the detection of a local pustule, and afterwards mention a test of a constitutional affection, which we have found very effectual, and which we would recommend to be practised by those who have had little experience in the new inoculation, until they become well acquainted with the true character of a constitutional pustule.

THE progress of the local vaccine pustule is much quicker than that of the constitutional one, and greatly resembles the progress of a pimple, or suppurating tumor from the prick of a thorn, or any other extraneous body. Its commencement is marked by a troublesome itching.

So early as the second or third day from inoculation, this pustule will be found to contain a yellow purulent matter. It is sometimes surrounded by a considerable degree of redness ; but this is never so extensive nor circumscribed as in the constitutional pustule, neither is there the same degree of hardness underneath as in the constitutional affection. This pustule is generally straw-coloured, and its shape is conical throughout. Its

course is finished, or the whole is formed into a crust, about the sixth or seventh day from inoculation. The crust is soft, unequal in its surface, and opaque, and very unlike the hard smooth glossy semitransparent crust already described.

IT frequently happens, that the inflammation on the arm is so slight, while at the same time no fever is perceptible, that there is much doubt whether or not the constitutional affection may have taken place; and there are instances where, although the progress of the pustule has been regular, and a considerable degree of inflammation has been observed, yet the constitution has not been affected, and the person has afterwards been affected by the small-pox. It is for preventing mistakes in instances of this sort, and in other cases in which the discrimination between the local and constitutional pustule cannot easily be made, that we would recommend the test as particularly useful.—

THE test we have alluded to is obtained by means of a double inoculation, which is to be conducted in the following manner:

WHEN the puncture on the arm has become perceptibly vesicated, which generally happens on the fifth day, as before mentioned, virus is to be taken from it, and inserted into the other

other arm. If this second puncture inflames, shews an areola round the small formed pustule, and, in fine, makes the same progress with the first pustule, [a] *i. e.* having its course finished in eight or nine days, while that of the original pustule is finished in thirteen or fourteen; then, although the inflammation may have been very slight, and although no fever had been observed, there can be no doubt of the constitution having been affected, and consequently there can be no doubt of the antivariolous effect of the operation.

3d, THE proper period at which the virus should be taken.—

THE proper period for taking the vaccine virus is from the perceptible vesication of the pustule on the fourth or fifth day, to the appearance of the areola on the ninth day. When the areola is completely formed, it will be prudent to desist from taking any more virus, unless it continues to flow perfectly limpid. If the progress of the vesicle be accelerated or retarded, as frequently happens, the virus must be taken sooner or later accordingly. To obtain the virus, let the edges of the vesicle be gently punctured with a lancet

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[a] It is to be observed, that the second pustule is not above a sixth part of the size of the first pustule, and that the areola is in like proportion.

in several points.—A limpid fluid will immediately begin to ooze out, and may be taken on the point of a lancet for immediate use, or be dried for preservation, as shall now be mentioned.

Lastly, THE proper method of preserving the vaccine virus, so as to have a constant supply of it, even in the most remote corner of the country.—

THIS is a very important point, and ought to be particularly attended to, as upon it depends, in a great measure, the success of the whole plan.

VARIOUS means have been suggested for preserving the vaccine virus in an active state ; but we shall only mention those which we have found from experience to be the most simple, and the best.

IF the virus is to be used immediately, it may be taken on the point of a lancet, as we have already mentioned. It may even be dried on the lancet, and used any time within 24 hours, but should never be used in this way after that period.

IF the virus is to be kept for any length of time, or to be sent to any distance, it may be preserved between two plates of glass. Let a piece of common window glass be cut into squares of about an inch,

inch, so as that they shall be smooth when placed upon each other. Let the collected vaccine fluid be confined to a small spot, about the size of a split pea, upon the center of one of these glasses, and be allowed to dry in the common heat of the atmosphere, without exposure to the heat of a fire, or of the sun. When dry, it should be immediately secured by placing over it the other piece of glass. It may then be wrapped in gold beater's skin, or moistened bladder. In this situation it may be kept for use, or sent to a distance.

ANOTHER method, and that which we have generally followed, is to have a small phial made for the purpose, having a long stopper reaching nearly to the bottom. This stopper is ground at the upper part, so as to stop the mouth of the phial as exactly as possible, and that part of it which is within the phial is formed into square surfaces. Upon these squares the virus is lodged, and when dry is put into the phial, where it is completely secured from the action of the external air.

WE have already sent vaccine virus in these bottles to the West Indies, and have received an account of one of them having been opened 60 days after it was closed, and another 62, and in both the virus was found perfectly active.

FOR some time past, we have inoculated a great many persons with virus obtained from the constitutional crust, formerly described. When we began this practice, we did not trust to the appearance of the affection produced by the crust, but inoculated the children afterwards with the virus of small-pox, and found that they were completely unsusceptible of that disease.

SOME caution, however, is necessary in the choice of crusts for inoculation.—

IN the *first* place, it is necessary that the pustule should have passed regularly through the different stages.

IN the *second* place, it is necessary to ascertain that the crusts to be used are the original crusts formed from the vesicles, and which are found to be nearly transparent. The best mode of keeping these crusts is to enclose them in a small phial, with a well ground glass stopper, as soon as they fall off, and thus seclude them from the air. They will keep for a long time perfectly active. We have found them so more than two months after they have fallen off.

WE are more earnest in recommending this mode of preserving the vaccine virus, as, if it is properly

properly attended to, a constant supply may be kept in the most remote corner of the country.

IT were to be wished, that, in addition to the above methods of preserving vaccine virus, institutions for promoting the vaccine inoculation were established, not only in every town, but in every large village where a medical practitioner resides. By this means a constant supply of recent virus could be kept up for the supply of the neighbourhood. Even in remote parts, where the inoculation is under the charge of the Clergyman, or some person employed by him, a constant supply of recent fluid matter might be kept up, by appointing a particular place where the children were to be brought, and inoculating them in succession. As the cow-pox cannot be communicated in any other way than by inoculation, there can be no risk of following this method, unless where the danger of small-pox contagion forces the practitioner to inoculate a great number at one time.

IN the mean time, till these desirable ends can be obtained, we assure the Clergy that vaccine matter shall be transmitted to them, by post, from the Institution at Edinburgh, as soon as it can be properly obtained, after application shall be made for it.

THE inoculated cow-pox is so mild that it may be safely communicated to all ages, in every season, and to children in any habit of body whatever;—although, when the danger of contagion from the small-pox does not press, we would advise the operation to be deferred till the child is from two to three months old. We would likewise advise the operation not to be performed during a feverish fit of teething, nor while the child is labouring under any febrile disease, or any inflammatory eruption, especially near the eyes. However, if the small-pox be in the neighbourhood, children may be inoculated at any time, without running much risk.

No preparation is necessary before inoculation for cow-pox, unless to remove costiveness by a gentle purgative.

THERE is hardly any case of inoculated cow-pox that requires medical treatment, except where the fever runs high, or the arm inflames much. A dose of mild physic will remove the fever; and the inflammation of the arm may be reduced by the repeated application of cold water, or by the application of a solution of sugar of lead, in the proportion of twenty grains to an English pint of water.

If the scab should at any time be rubbed off, the part may be occasionally touched with a strong solution of sugar of lead; or the part may be dressed with a little of the mild citrine ointment, a small pot of which we would recommend to be kept by every vaccine inoculator.

W^M FARQUHARSON.

JAMES BRYCE.

[It is probable that many of the Clergy might, without much trouble to themselves, obtain pretty accurate lists of the number of deaths which take place in their parishes every year from the natural small-pox, and of the number inoculated for cow-pox. If any of them will be so obliging as transmit such lists, addressed to William Kerr, Esq; Secretary to the General Post Office, it will be considered as a favour conferred on the Managers of the Vaccine Institution, and may have some good effect, in promoting the extermination of small-pox.]

COWPOX.

Genuine Kind.

(Page

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Fig. 1st

3rd day

Fig. 2nd

5th day

Fig. 3rd

8th day

Fig. 4th

10th day

Fig. 5th

11th day

Fig. 6th

12th day

Fig. 7th

15th day

Spurious Kind.

3rd day

A

4th day

B

5th day

C

6th day

D

7th day

E

8th day

F



